

ORDER NO. MD0310441C2

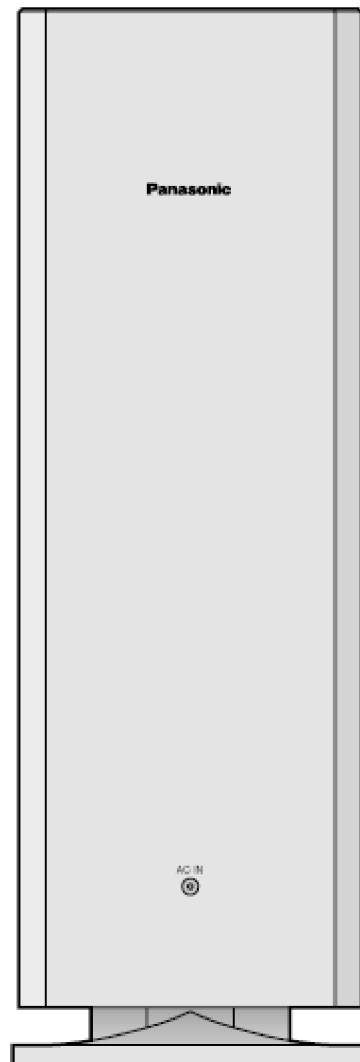
Service Manual

Active Subwoofer System

SB-WA340EBS1

Colour

(S1)...Silver Type



SB-WA340

SPECIFICATIONS

Specification

■ Active subwoofer

| | |
|-----------------------------|--|
| Type | 1 way, 1 speaker system, bass-ref. |
| Woofer | 17 cm cone type |
| Impedance | 4 Ω |
| Output sound pressure level | 80 dB/W (1.0 m) |
| Frequency range | 40 Hz-220 Hz (-16 dB) 45 Hz-180 Hz (-10 dB) |
| Dimensions (W x H x D) | 160 x 450 x 424 mm |
| Mass | Approx. 12 kg |

■ General

| | |
|-----------------------------------|---------------------|
| Power supply | AC 230-240 V, 50 Hz |
| Power consumption | 250 W |
| Power consumption in standby mode | 0.7 W |

Note :

Specifications are subject to change without notice.

Mass and dimensions are approximate.

■ System : SC-HT1000EBS

Music Center: SA-HT1000EBS

Front speakers: SB-PF1000P-S (x 2)

Center speaker: SB-PC1000P-S (x 1)

Surround speakers: SB-PS1000P-S (x 2)

Active Subwoofer: SB-WA340EBS1

■ System : SC-HT1000EGS

Music Center: SA-HT1000EGS

Front speakers: SB-PF1000P-S (x 2)

Center speaker: SB-PC1000P-S (x 1)

Surround speakers: SB-PS1000P-S (x 2)

Active Subwoofer: SB-WA340EBS1

Panasonic

1. Safety Precautions

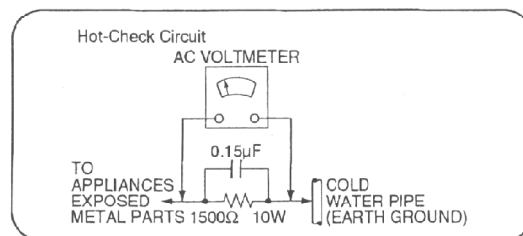
1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1\text{M } \Omega$ and $5.2\text{ } \Omega$. / When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

Fig. 1



1.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5\text{k } \Omega$, 10 watts resistor, in parallel with a $0.15\text{ }\mu\text{ F}$ capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at

each point.

5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2. Handling the Lead-free Solder

2.1. About lead free solder (PbF)

Distinction of PbF P.C.B. :

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- Pb free solder has a higher melting point than standard solder;
Typically the melting point is 50 - 70°F (30 - 40°C) higher. / Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

3. Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C546, C547, C548, C549 through a 10 Ω , 1 W resistor to ground.

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 230-240V, 50Hz in NO SIGNAL mode should be ~500 mA .

4. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are

“shorted”, or if speaker systems with an impedance less than the indicated rated impedance of

the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

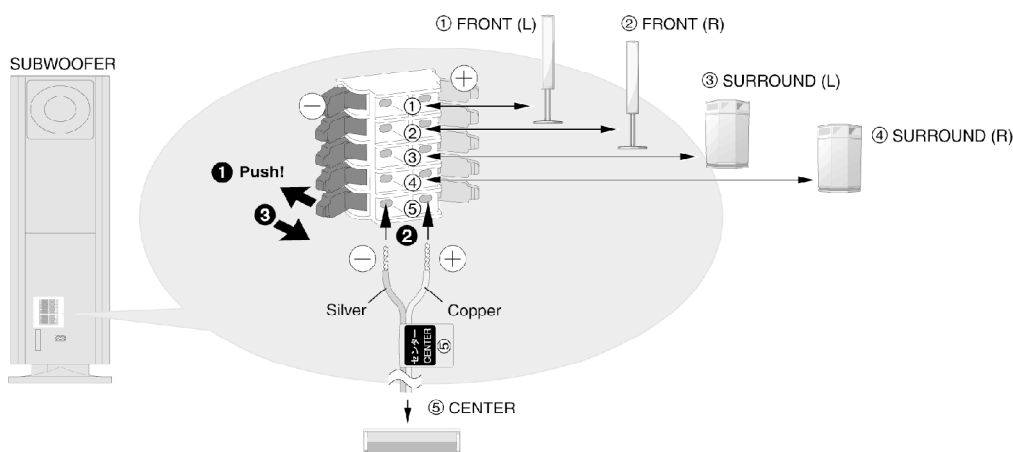
Note :

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

5. Connection of the Speaker Cables

- Be sure to connect speaker cables before connecting the AC power supply cord.
- The load impedance of any speaker used with this unit must be 4 Ω .
- Be sure to connect the cable from the right speaker to the right terminal and the cable from the left speaker to the left terminal.

1. Strip off the outer covering, and twist the center conductor. Make sure the bare ends of the wires are not unravelled. (If they are, twist them tight again.)
2. Insert the wire to the rear panel of the unit and close the lever.



Notes :

- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.
- Be sure to connect only positive (red) wires to positive (+) terminals and negative (black) wires to negative (-) terminals.

6. Disassembly Procedure

“ATTENTION SERVICER”

Some chassis components may have sharp edges.

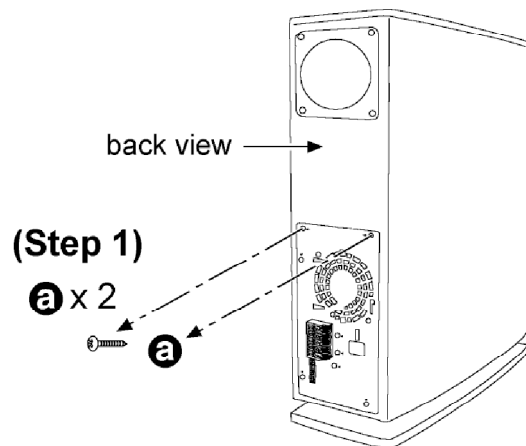
Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

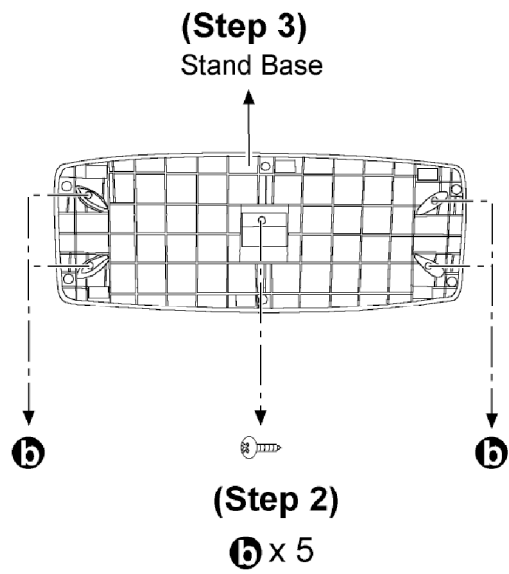
Contents

- Disassembly of the Speaker Unit
- Main Component Replacement Procedures

6.1. Disassembly of the Speaker Unit

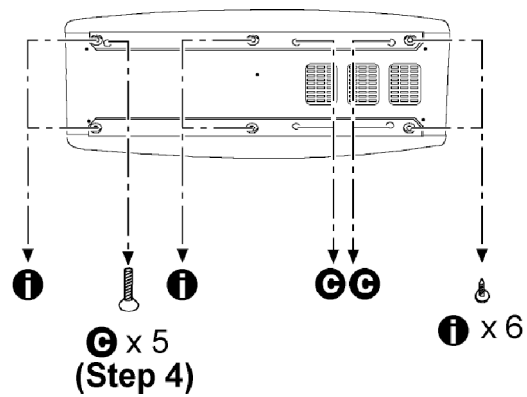


Step 1: Remove 2 screws from the rear panel.

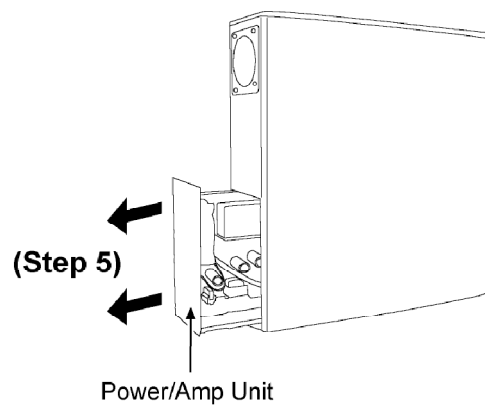


Step 2: Remove all screws.

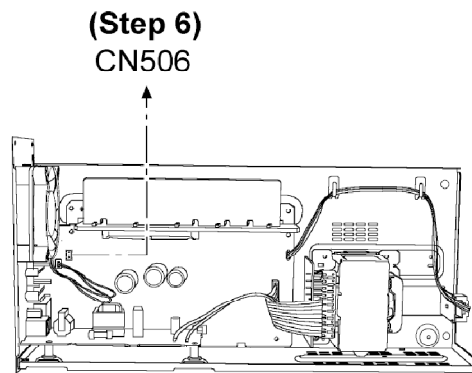
Step 3: Remove the Stand Base.



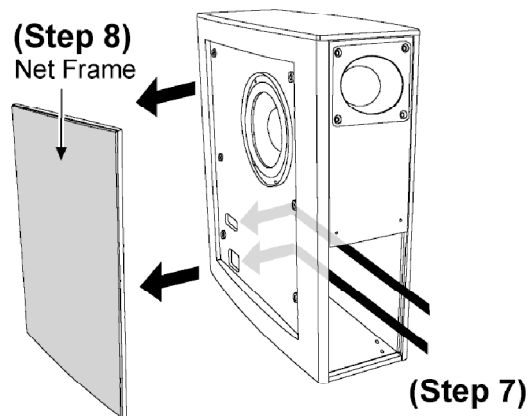
Step 4: Remove all screws from the speaker bottom.



Step 5: Pull the Power/Amp Unit as shown.

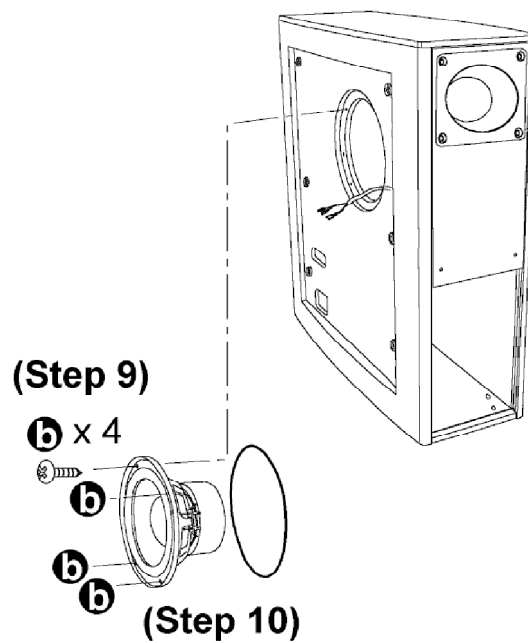


Step 6: Release the connector CN506 and pull out the Power/Amp Unit.



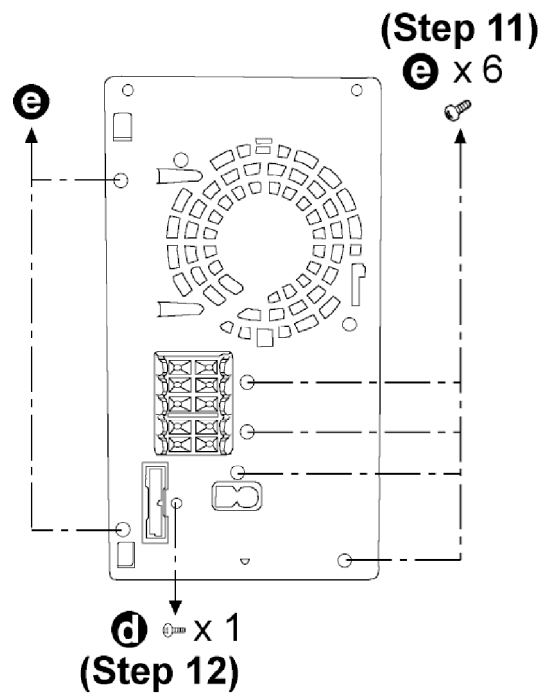
Step 7: Push the Net Frame from two holes inside the unit.

Step 8: Remove the Net Frame.

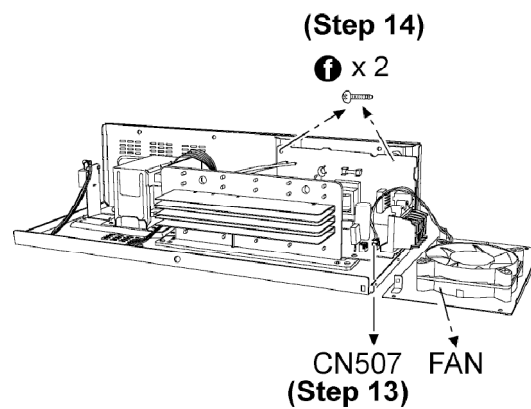


Step 9: Remove all the screws.

Step 10: Remove the Speaker.

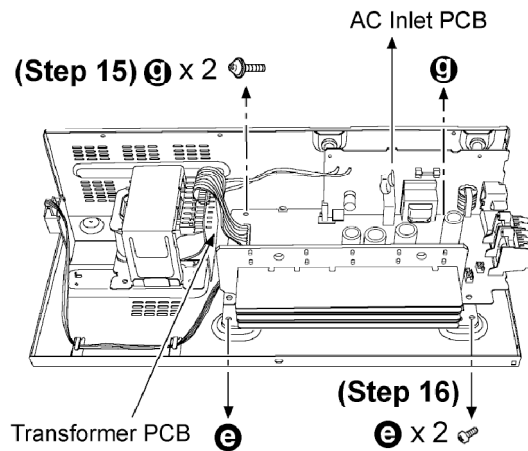


Step 11 & 12: Remove all the screws.

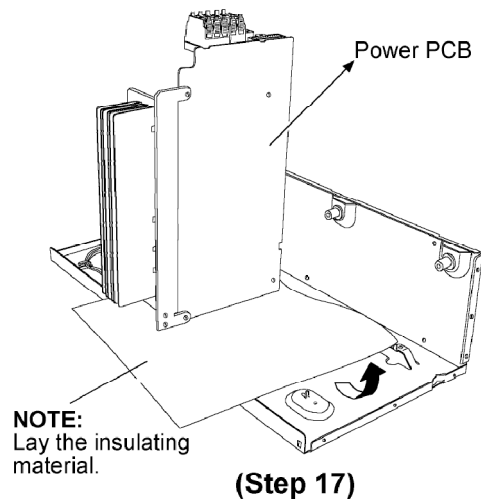


Step 13: Release the connector CN507.

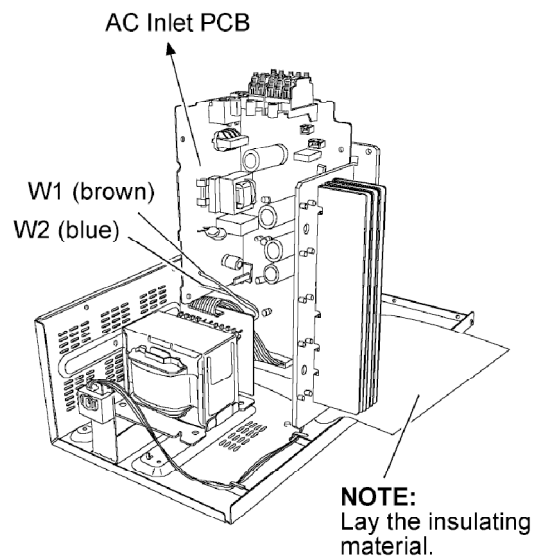
Step 14: Remove the 2 screws.



Step 15 & 16: Remove all the screws.



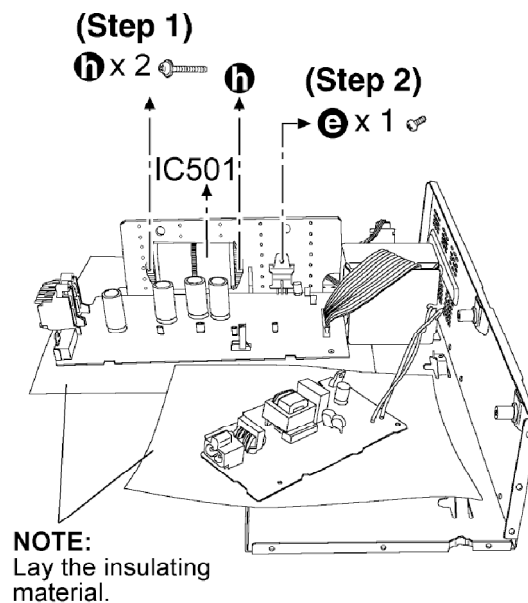
Step 17: Place the Power PCB as shown for checking.



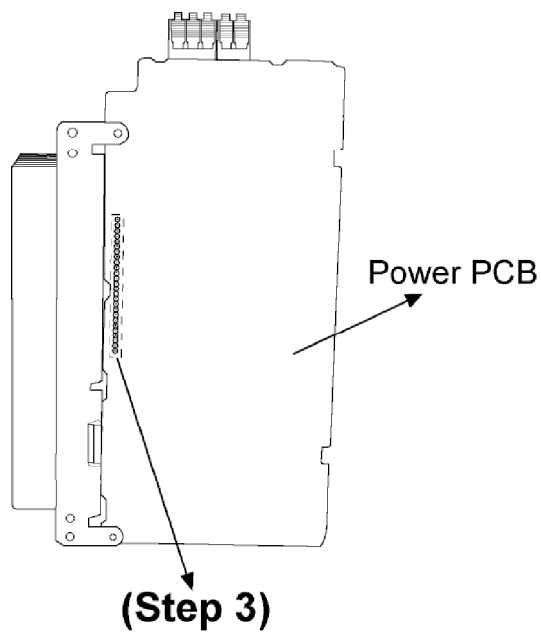
Checking for AC Inlet PCB.

6.2. Main Component Replacement Procedures

6.2.1. Replacement of the Power IC

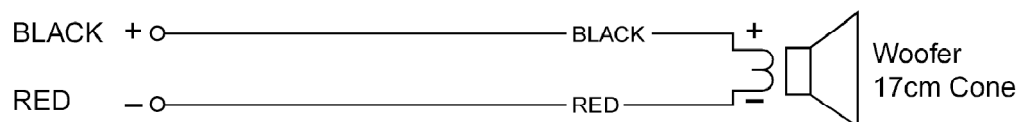


Step 1 & 2: Remove all the screws.



Step 3: Desolder the Power IC terminal and replace the component.

7. Connection of the Speaker Wiring



8. Block Diagram

9. Schematic Diagram

(All schematic diagrams may be modified at any time with the development of the new technology)

Note:

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.
- Importance safety notice :
Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

10. Printed Circuit Board

11. Wiring Connection Diagram

12. Illustration of IC's, Transistors and Diodes

13. Parts Location and Replacement Parts List

Notes:

- Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

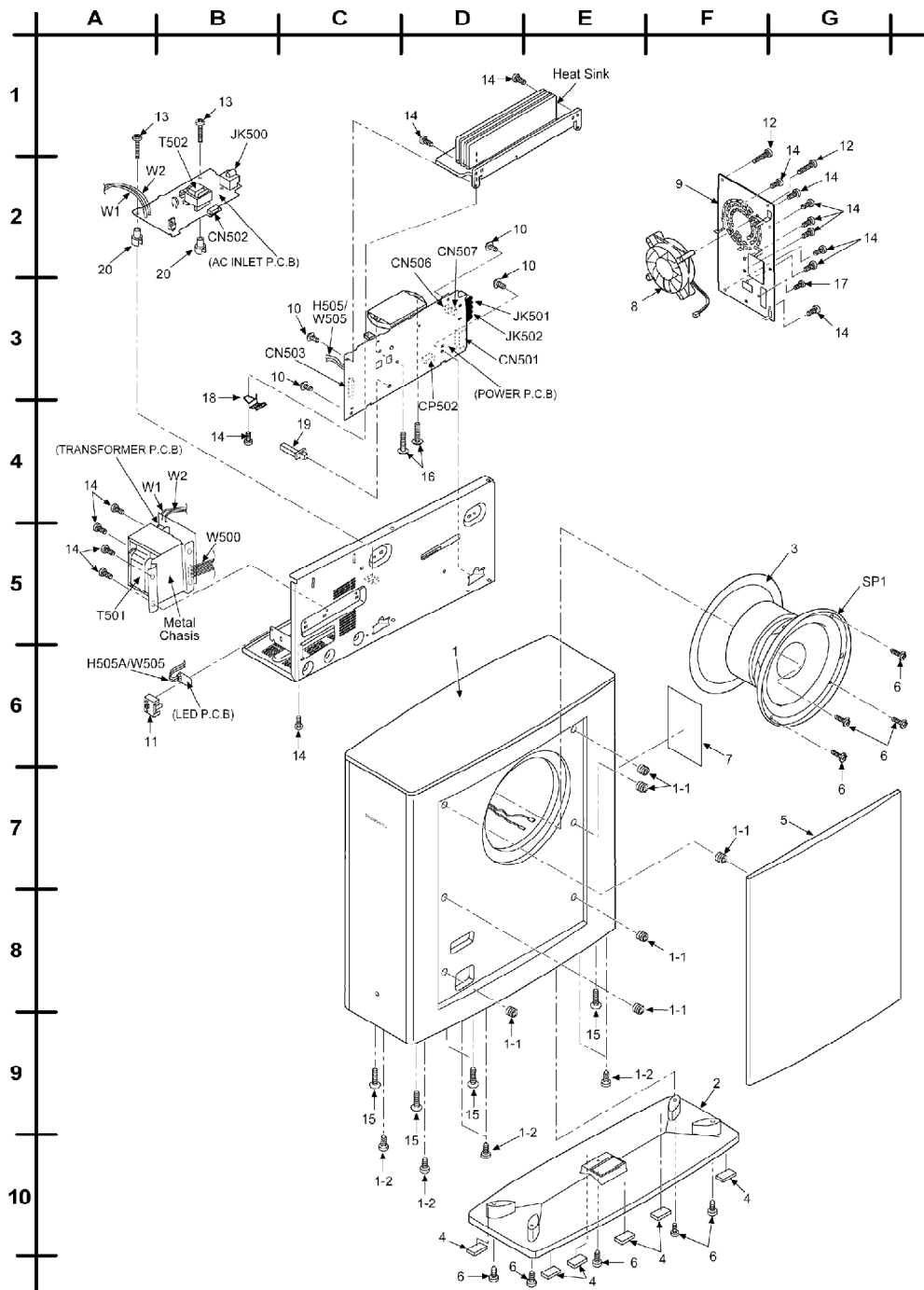
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.

When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.

- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)
Parts without these indications can be used for all areas.**
- Capacitor values are in microfarads (μ F) unless specified otherwise, P= Pico-farads (pF), F= Farads.**
- Resistance values are in ohms, unless specified otherwise, 1K= 1,000 (OHM).**
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.**
- [M] Markings in the Remarks columns indicates parts supplied by PAVCSG.**
- The “(SF)” mark denotes the standard part.**

13.1. Cabinet

13.1.1. Cabinet Parts Location




13.1.2. Cabinet Parts List

| Ref. No. | Part No. | Part Name & Description | Remarks |
|------------|--------------|-------------------------|---------|
| | | CABINET AND CHASSIS | |
| | | | |
| <u>1</u> | RFKHBWA302-S | SPK CABINET ASS'Y | [M] |
| <u>1-1</u> | RMG0520-KJ | CATCH | [M] |
| <u>1-2</u> | SRTF4B10F | SCREW | [M] |
| <u>2</u> | RGK1601-S | STAND ORNAMENT | [M] |
| <u>3</u> | RMQ0705 | EVA PACKING | [M] |
| <u>4</u> | RKA0147-K | FOOT | [M] |
| <u>5</u> | RYB0298A | NET FRAME ASS'Y | [M] |
| <u>6</u> | XTB4+12AFZ | SCREW (WOOFER) | [M] |
| <u>7</u> | RGNX0175M-S | SPEC LABEL | [M] |
| <u>8</u> | REM0072-3 | FAN | [M] |
| <u>9</u> | RGR0332A-KA | REAR PANEL | [M] |
| <u>10</u> | RHD30092 | SCREW (MAIN PCB) | [M] |
| <u>11</u> | RMR1485-W | LED HOLDER | [M] |
| <u>12</u> | XTB3+16AFZ | SCREW | [M] |
| <u>13</u> | XTB3+20JFZ | SCREW | [M] |
| <u>14</u> | XTBS3+8JFZ1 | SCREW | [M] |
| <u>15</u> | XTS4+20JFZ | SCREW | [M] |
| <u>16</u> | XTW3+15T | SCREW | [M] |
| <u>17</u> | XYC26+CJ6FZ | SCREW | [M] |
| <u>18</u> | RMC0158-S | TR-FIXTURE | [M] |
| <u>19</u> | RMN0203 | PCB HOLDER | [M] |
| <u>20</u> | SHE187-6J | PCB SUPPORT | [M] |

13.2. Electrical Parts List

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|---|-----------|
| | | PRINTED CIRCUIT BOARD | |
| | | | |
| | REPX0375C | POWER P.C.B./ AC INLET P.C.B./ TRANSFORMER P.C.B./ LED P.C.B. | [M] (RTL) |
| | | | |
| | | INTEGRATED CIRCUITS | |
| | | | |
| IC501 | RSN311W64B-P | IC HIC | [M] |
| IC502 | C0AABB000055 | IC AMP | [M] |
| | | | |
| | | TRANSISTORS | |
| | | | |
| Q501 | KTC3199GRTA | TRANSISTOR | [M] |
| Q502 | KTC3199GRTA | TRANSISTOR | [M] |
| Q503 | KTC3199GRTA | TRANSISTOR | [M] |
| Q505 | KTC3199GRTA | TRANSISTOR | [M] |
| Q506 | KRA102MTA | TRANSISTOR | [M] |
| Q507 | KTC3199GRTA | TRANSISTOR | [M] |
| Q508 | KTA12710YTA | TRANSISTOR | [M] |
| Q509 | KTC3199GRTA | TRANSISTOR | [M] |
| Q510 | KTC3199GRTA | TRANSISTOR | [M] |
| Q511 | KTC2026 | TRANSISTOR | [M] |
| Q513 | KTC3199GRTA | TRANSISTOR | [M] |
| Q514 | KTC3199GRTA | TRANSISTOR | [M] |
| Q515 | KTC3199GRTA | TRANSISTOR | [M] |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---|
| Q516 | KRC102MTA | TRANSISTOR | [M] |
| Q517 | KTC2026 | TRANSISTOR | [M] |
| Q519 | KTC3199GRTA | TRANSISTOR | [M] |
| Q520 | KRA102MTA | TRANSISTOR | [M] |
| | | | |
| | | DIODES | |
| | | | |
| D500 | B0AACK000004 | DIODE | [M] |
| D501 | B0JAPG000019 | DIODE | [M] |
| D502 | B0JAPG000019 | DIODE | [M] |
| D503 | MA2C700A0F | DIODE | [M] |
| D504 | B0AACK000004 | DIODE | [M] |
| D505 | B0AACK000004 | DIODE | [M] |
| D506 | B0AACK000004 | DIODE | [M] |
| D507 | B0AACK000004 | DIODE | [M] |
| D508 | B0AACK000004 | DIODE | [M] |
| D509 | B0BA5R100013 | DIODE | [M] |
| D510 | B0BA9R600002 | DIODE | [M] |
| D511 | B0HARM000017 | DIODE | [M] |
| D512 | B0HARM000017 | DIODE | [M] |
| D513 | B0HARM000017 | DIODE | [M] |
| D514 | B0HARM000017 | DIODE | [M] |
| D515 | B0EAKM000085 | DIODE | [M] |
| D516 | B0EAKM000085 | DIODE | [M] |
| D517 | B0HARM000017 | DIODE | [M] |
| D518 | B0HARM000017 | DIODE | [M] |
| D519 | B0AACK000004 | DIODE | [M] |
| D524 | SLI325URCT31 | DIODE | [M] |
| D525 | B0BA6R600008 | DIODE | [M] |
| D527 | B0EAKM000085 | DIODE | [M] |
| D528 | B0EAKM000085 | DIODE | [M] |
| D529 | B0EAKM000085 | DIODE | [M] |
| D530 | B0EAKM000085 | DIODE | [M] |
| D533 | B0BA5R100013 | DIODE | [M] |
| | | | |
| | | CONNECTORS | |
| | | | |
| CN501 | K1FB125B0095 | SYSTEM CONNECTOR | [M] |
| CN502 | K1KB07B00020 | 2P CONNECTOR | [M] |
| CN503 | K1KA12A00066 | CONNECTOR | [M] |
| CN506 | K1KA03A00006 | CONNECTOR | [M] |
| CN507 | K1KA02A00008 | CONNECTOR | [M] |
| | | | |
| CP502 | K1KA07A00123 | 2P CONNECTOR | [M] |
| | | | |
| | | COILS & TRANSFORMERS | |
| | | | |
| L500 | RLQZ371 | LINE FILTER | [M]  |
| L501 | G0AR76Y00001 | CHOKE COIL | [M] |
| L502 | G0AR76Y00001 | CHOKE COIL | [M] |
| L503 | G0AR76Y00001 | CHOKE COIL | [M] |
| L504 | G0AR76Y00001 | CHOKE COIL | [M] |
| L505 | G0AR76Y00001 | CHOKE COIL | [M] |
| | | | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| T501 | G4C7AGG00001 | POWER TRANSFORMER | [M] ⚠ |
| T502 | G4C2AAJ00005 | BACK-UP TRANSFORMER | [M] ⚠ |
| | | COMPONENT COMBINATION | |
| Z501 | ERZV10V511CS | ZENER | [M] ⚠ |
| | | SPEAKER | |
| SP1 | EAST17PL21B6 | SPEAKER | [M] |
| | | RELAY | |
| RLY501 | RSY0040M-0 | PRIMARY RELAY | [M] ⚠ |
| | | FUSES | |
| F1 | K5D202BK0005 | 250V 2A FUSE | [M] ⚠ |
| | | FUSE HOLDERS | |
| FC501 | EYF52BC | FUSE HOLDER | [M] |
| FC502 | EYF52BC | FUSE HOLDER | [M] |
| | | FUSE PROTECTOR | |
| FP1 | K5G502AA0002 | 5A FUSE PROTECTOR | [M] ⚠ |
| | | HOLDERS | |
| H500 | K1YF12000002 | 12P WIRE HOLDER | [M] |
| H505A | RMR0312 | 3P CABLE HOLDER | [M] |
| H505B | RMR0312 | 3P CABLE HOLDER | [M] |
| | | JACKS | |
| JK500 | K2AA2B000004 | JK AC INLET | [M] ⚠ |
| JK501 | K4BC06B00043 | JK | [M] |
| JK502 | K4BC04B00075 | JK SPEAKER | [M] |
| | | EARTH TERMINAL | |
| E500 | K4CZ01000027 | TERMINAL | [M] |
| E501 | K4CZ01000027 | TERMINAL | [M] |
| | | WIRES | |
| W1 | REE1205 | WIRE UNIT | [M] |
| W2 | REE1204 | WIRE UNIT | [M] |
| W500 | REX1146 | WIRE UNIT | [M] |
| W505 | RWJ1103320XX | 3P STRAND TYPE WIRE | [M] |



| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| | | RESISTORS | |
| R401 | ERDS2TJ224T | 220K 1/4W | [M] |
| R402 | ERDS2TJ102T | 1K 1/4W | [M] |
| R403 | ERDS2TJ104T | 100K 1/4W | [M] |
| R501 | ERDS2TJ472T | 4.7K 1/4W | [M] |
| R502 | ERDS2TJ472T | 4.7K 1/4W | [M] |
| R503 | ERDS2TJ153T | 15K 1/4W | [M] |
| R504 | ERDS2TJ153T | 15K 1/4W | [M] |
| R505 | ERDS2TJ153T | 15K 1/4W | [M] |
| R506 | ERDS2TJ153T | 15K 1/4W | [M] |
| R507 | ERDS2TJ392T | 3.9K 1/4W | [M] |
| R508 | ERDS2TJ392T | 3.9K 1/4W | [M] |
| R509 | ERDS2TJ472T | 4.7K 1/4W | [M] |
| R510 | ERDS2TJ472T | 4.7K 1/4W | [M] |
| R511 | ERDS2TJ153T | 15K 1/4W | [M] |
| R512 | ERDS2TJ153T | 15K 1/4W | [M] |
| R513 | ERDS2TJ563T | 56K 1/4W | [M] |
| R514 | ERDS2TJ563T | 56K 1/4W | [M] |
| R515 | ERDS2TJ563T | 56K 1/4W | [M] |
| R516 | ERDS2TJ563T | 56K 1/4W | [M] |
| R517 | ERDS2TJ563T | 56K 1/4W | [M] |
| R518 | ERDS2TJ563T | 56K 1/4W | [M] |
| R519 | ERDS2TJ824T | 820K 1/4W | [M] |
| R520 | ERDS2TJ223T | 22K 1/4W | [M] |
| R521 | ERDS2TJ103T | 10K 1/4W | [M] |
| R522 | ERDS2TJ273T | 27K 1/4W | [M] |
| R523 | ERDS2TJ124T | 120K 1/4W | [M] |
| R524 | ERDS2TJ124T | 120K 1/4W | [M] |
| R525 | ERDS2TJ154T | 150K 1/4W | [M] |
| R526 | ERDS2TJ124T | 120K 1/4W | [M] |
| R527 | ERDS2TJ124T | 120K 1/4W | [M] |
| R528 | ERDS2TJ154T | 150K 1/4W | [M] |
| R529 | ERDS2TJ223T | 22K 1/4W | [M] |
| R530 | ERD25FVJ1R0T | 1 1/4W | [M] |
| R531 | ERD25FVJ1R0T | 1 1/4W | [M] |
| R532 | ERDS2TJ472T | 4.7K 1/4W | [M] |
| R533 | ERDS1FVJ100T | 10 1/2W | [M] |
| R534 | ERDS1FVJ100T | 10 1/2W | [M] |
| R535 | ERDS1FVJ100T | 10 1/2W | [M] |
| R536 | ERDS1FVJ100T | 10 1/2W | [M] |
| R537 | ERDS1FVJ100T | 10 1/2W | [M] |
| R538 | ERDS1FVJ100T | 10 1/2W | [M] |
| R539 | ERDS2TJ101T | 100 1/4W | [M] |
| R540 | ERDS2TJ101T | 100 1/4W | [M] |
| R541 | ERDS2TJ101T | 100 1/4W | [M] |
| R542 | ERDS2TJ101T | 100 1/4W | [M] |
| R543 | ERDS2TJ101T | 100 1/4W | [M] |
| R544 | ERDS2TJ101T | 100 1/4W | [M] |
| R545 | ERDS2TJ224T | 220K 1/4W | [M] |
| R546 | ERDS2TJ102T | 1K 1/4W | [M] |
| R547 | ERDS2TJ394T | 390K 1/4W | [M] |
| R548 | ERDS2TJ334T | 330K 1/4W | [M] |
| R549 | ERDS2TJ473T | 47K 1/4W | [M] |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R550 | ERDS2TJ103T | 10K 1/4W | [M] |
| R551 | ERDS2TJ472T | 4.7K 1/4W | [M] |
| R552 | ERDS2TJ562T | 5.6K 1/4W | [M] |
| R553 | ERDS2TJ563T | 56K 1/4W | [M] |
| R554 | ERDS2TJ824T | 820K 1/4W | [M] |
| R555 | ERDS2TJ104T | 100K 1/4W | [M] |
| R556 | ERDS2TJ103T | 10K 1/4W | [M] |
| R557 | ERDS2TJ563T | 56K 1/4W | [M] |
| R558 | ERDS1FVJ180T | 18 1/2W | [M] |
| R559 | ERDS2TJ563T | 56K 1/4W | [M] |
| R560 | ERDS2TJ103T | 10K 1/4W | [M] |
| R561 | ERDS2TJ101T | 100 1/4W | [M] |
| R565 | ERDS1FVJ392T | 3.9K 1/2W | [M] |
| R566 | ERDS2TJ271T | 270 1/4W | [M] |
| R567 | ERDS1FVJ152T | 1.5K 1/2W | [M] |
| R568 | ERDS2TJ151T | 150 1/4W | [M] |
| R569 | ERDS1FVJ392T | 3.9K 1/2W | [M] |
| R570 | ERDS2TJ103T | 10K 1/4W | [M] |
| R571 | ERDS2TJ332T | 3.3K 1/4W | [M] |
| R572 | ERDS2TJ223T | 22K 1/4W | [M] |
| R573 | D0XGR10JA005 | 0.1 1/10W | [M] |
| R575 | ERDS2TJ682T | 6.8K 1/4W | [M] |
| R577 | ERDS2TJ152T | 1.5K 1/4W | [M] |
| R578 | ERDS2TJ103T | 10K 1/4W | [M] |
| R579 | ERDS2TJ332T | 3.3K 1/4W | [M] |
| R580 | ERDS2TJ220T | 22 1/4W | [M] |
| R581 | ERDS2TJ100T | 10 1/4W | [M] |
| R582 | ERDS2TJ100T | 10 1/4W | [M] |
| R583 | ERDS2TJ100T | 10 1/4W | [M] |
| R584 | ERDS2TJ100T | 10 1/4W | [M] |
| R585 | ERDS2TJ100T | 10 1/4W | [M] |
| R587 | ERDS2TJ272T | 2.7K 1/4W | [M] |
| R588 | ERDS2TJ151T | 150 1/4W | [M] |
| R589 | ERDS2TJ103T | 10K 1/4W | [M] |
| R590 | ERDS2TJ102T | 1K 1/4W | [M] |
| R591 | ERDS2TJ682T | 6.8K 1/4W | [M] |
| R592 | ERDS2TJ683T | 68K 1/4W | [M] |
| R593 | ERDS2TJ474T | 470K 1/4W | [M] |
| R594 | ERDS2TJ103T | 10K 1/4W | [M] |
| R595 | ERDS2TJ101T | 100 1/4W | [M] |
| R596 | ERDS2TJ473T | 47K 1/4W | [M] |
| R597 | ERDS2TJ103T | 10K 1/4W | [M] |
| R598 | ERDS1FVJ152T | 1.5K 1/2W | [M] |
| R599 | ERDS2TJ223T | 22K 1/4W | [M] |
| | | | |
| | | CAPACITORS | |
| | | | |
| C500 | ECKWRS102MBC | 1000P 400V | [M] |
| C501 | ECBT1H102KB5 | 1000P 50V | [M] |
| C502 | ECBT1H102KB5 | 1000P 50V | [M] |
| C503 | ECBT1H102KB5 | 1000P 50V | [M] |
| C504 | ECBT1H681KB5 | 680P 50V | [M] |
| C505 | ECBT1H102KB5 | 1000P 50V | [M] |
| C506 | ECBT1H102KB5 | 1000P 50V | [M] |

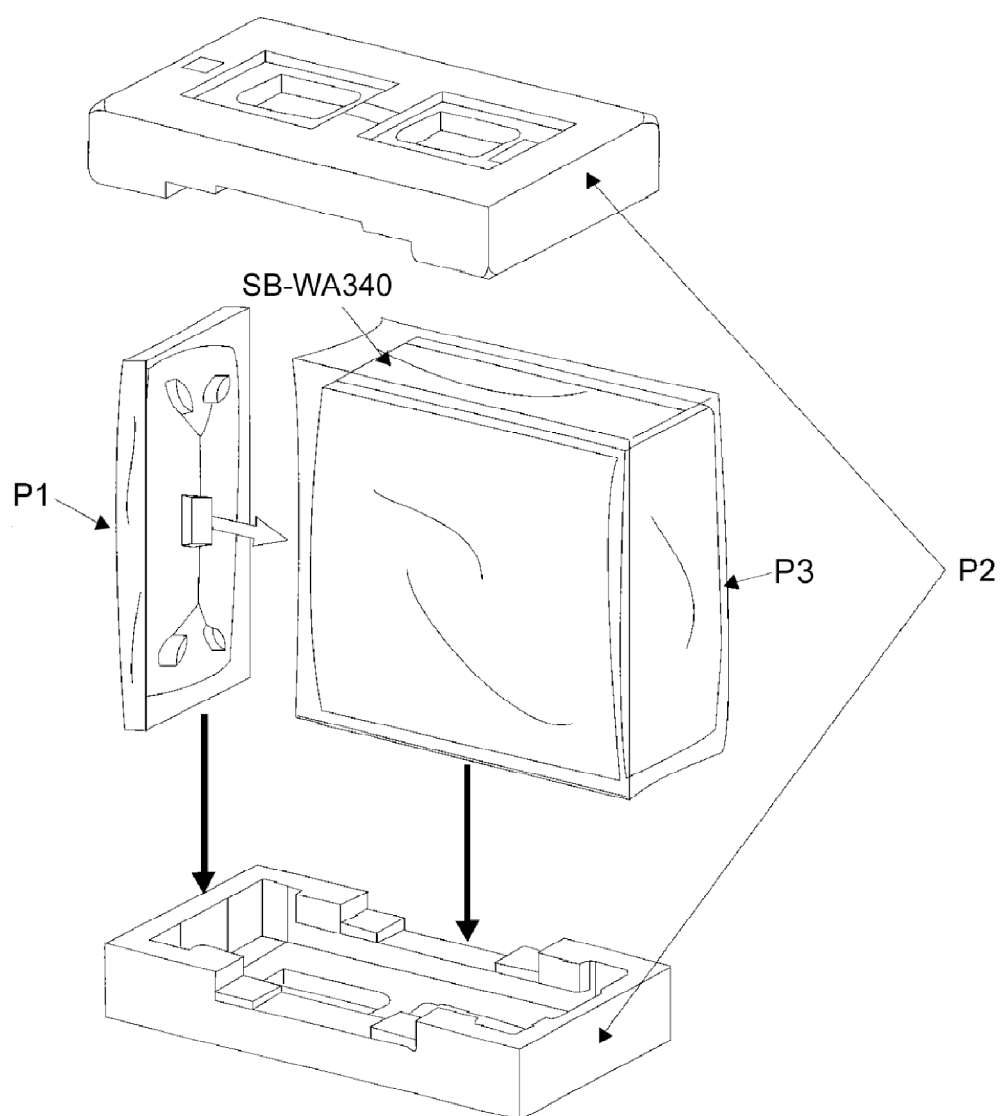
| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C507 | ECBT1H180JC5 | 18P 50V | [M] |
| C508 | ECBT1H180JC5 | 18P 50V | [M] |
| C509 | ECBT1H220JC5 | 22P 50V | [M] |
| C510 | ECBT1H220JC5 | 22P 50V | [M] |
| C511 | ECBT1H220JC5 | 22P 50V | [M] |
| C512 | ECBT1H220JC5 | 22P 50V | [M] |
| C513 | F1D1H473A012 | 0.047 50V | [M] |
| C514 | ECA0JM101B | 100 6.3V | [M] |
| C515 | ECKR2H103ZF5 | 0.01 500V | [M] |
| C516 | ECKR2H103ZF5 | 0.01 500V | [M] |
| C517 | ECBT1C103NS5 | 0.01 16V | [M] |
| C518 | F1D1H473A012 | 0.047 50V | [M] |
| C519 | F1D1H473A012 | 0.047 50V | [M] |
| C520 | F1D1H473A012 | 0.047 50V | [M] |
| C521 | F1D1H473A012 | 0.047 50V | [M] |
| C522 | F1D1H473A012 | 0.047 50V | [M] |
| C523 | F1D1H473A012 | 0.047 50V | [M] |
| C524 | F1D1H1040002 | 0.1 50V | [M] |
| C525 | F1D1H1040002 | 0.1 50V | [M] |
| C526 | F1D1H1040002 | 0.1 50V | [M] |
| C527 | F1D1H1040002 | 0.1 50V | [M] |
| C528 | F1D1H473A012 | 0.047 50V | [M] |
| C529 | F1D1H1040002 | 0.1 50V | [M] |
| C530 | ECBT1H102KB5 | 1000P 50V | [M] |
| C531 | ECBT1H102KB5 | 1000P 50V | [M] |
| C532 | ECBT1H102KB5 | 1000P 50V | [M] |
| C533 | ECBT1H102KB5 | 1000P 50V | [M] |
| C534 | ECA1HM330B | 33 50V | [M] |
| C536 | ECEA1CKA330B | 33 16V | [M] |
| C537 | F1D1H1040002 | 0.1 50V | [M] |
| C538 | ECA0JM101B | 100 6.3V | [M] |
| C539 | ECEA0JKA221B | 220 6.3V | [M] |
| C540 | ECEA1HKA2R2B | 2.2 50V | [M] |
| C541 | ECEA1CKA100B | 10 16V | [M] |
| C543 | ECBT1H102KB5 | 1000P 50V | [M] |
| C544 | ECA1HM101B | 100 50V | [M] |
| C545 | F1D1H1040002 | 0.1 50V | [M] |
| C546 | ECA1VM332B | 3300 35V | [M] |
| C547 | F2A1V472A155 | 4700P 35V | [M] |
| C548 | F2A1V472A155 | 4700P 35V | [M] |
| C549 | ECA1VM332B | 3300 35V | [M] |
| C550 | ECBT1C103NS5 | 0.01 16V | [M] |
| C551 | ECBT1H103KB5 | 0.01 50V | [M] |
| C552 | F1D1H1040002 | 0.1 50V | [M] |
| C553 | ECQE1104KF3 | 0.1 100V | [M] |
| C554 | ECQE1104KF3 | 0.1 100V | [M] |
| C555 | ECEA1VKA4R7B | 4.7 35V | [M] |
| C556 | ECBT1H103KB5 | 0.01 50V | [M] |
| C557 | ECEA1CKA220B | 22 16V | [M] |
| C558 | ECA1CM102B | 1000 16V | [M] |
| C559 | ECBT1H103KB5 | 0.01 50V | [M] |
| C560 | ECA1HM100B | 10 50V | [M] |
| C561 | ECEA1HKA2R2B | 2.2 50V | [M] |
| C562 | ECQB1H562JF3 | 5600P 50V | [M] |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C563 | ECQV1H823JL3 | 0.082 50V | [M] |
| C564 | ECBT1C122KR5 | 1200P 16V | [M] |
| C565 | F1D1H1040002 | 0.1 50V | [M] |
| C566 | F1D1H1040002 | 0.1 50V | [M] |
| C567 | ECA1HM100B | 10 50V | [M] |
| C568 | ECBT1C103NS5 | 0.01 16V | [M] |
| C569 | F1D1H473A012 | 0.047 50V | [M] |

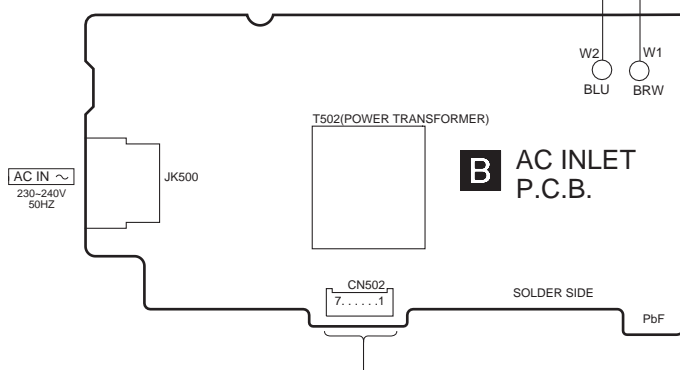
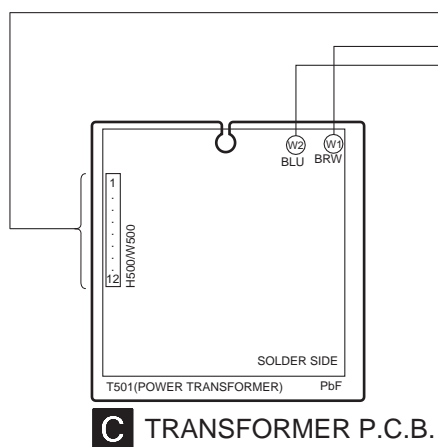
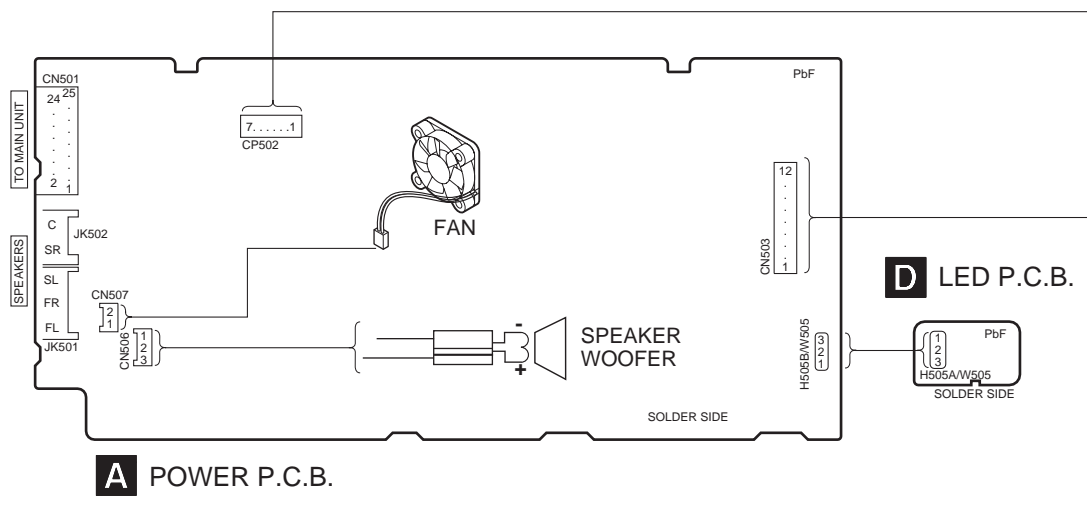
13.3. Packing Materials & Accessories Parts List

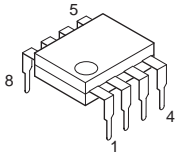
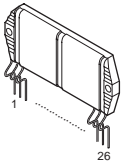
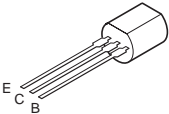
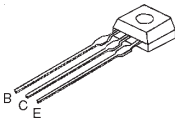
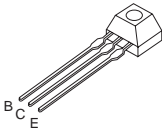
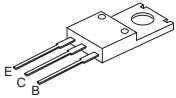
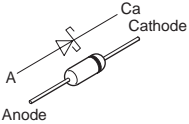
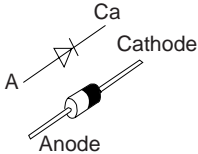
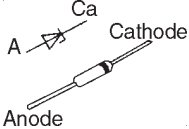
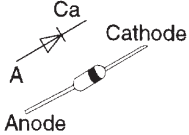
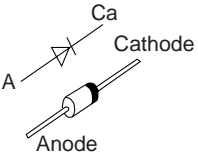
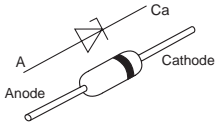
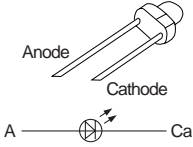
| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|----------|-------------------------|---------|
| | | PACKING MATERIALS | |
| | | | |
| P1 | RPF0357 | MIRAMAT (STAND) | [M] |
| P2 | RPN1649 | POLYFOAM (A. WOOFER) | [M] |
| P3 | RPF0045 | MIRAMAT (A. WOOFER) | [M] |

13.4. Packaging



FLE0310/D/A/S/E/N

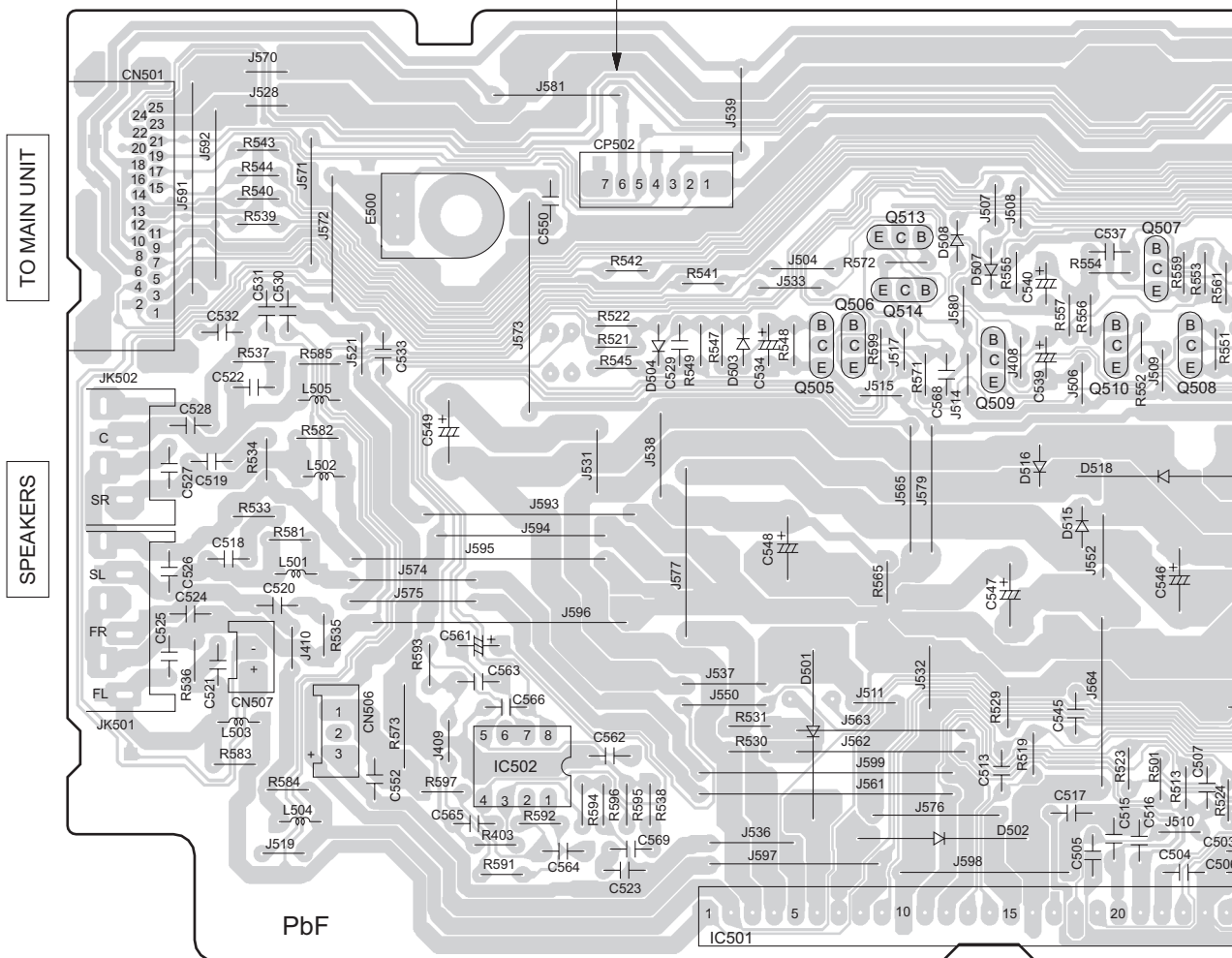


| | | | | |
|---|--|---|--|--|
| <p>C0AABB000055</p>  | <p>RSN311W64B-P</p>  | <p>KTA12710YTA</p>  | <p>KTC3199GRTA</p>  | <p>KRA102MTA KRC102MTA</p>  |
| <p>KTC2026</p>  | <p>MA2C700A0F</p>  | <p>B0HARM000017</p>  | <p>B0BA9R600002</p>  | <p>B0AACK000004</p>  |
| <p>B0EAKM000085 B0JAPG000019</p>  | <p>B0BA6R600008 B0BA5R100013</p>  | <p>SLI325URCT31</p>  | | |

A B C D E F G

A POWER P.C.B. (REPX0375C)

CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE DO NOT
TOUCH THIS P.C.B



G

H

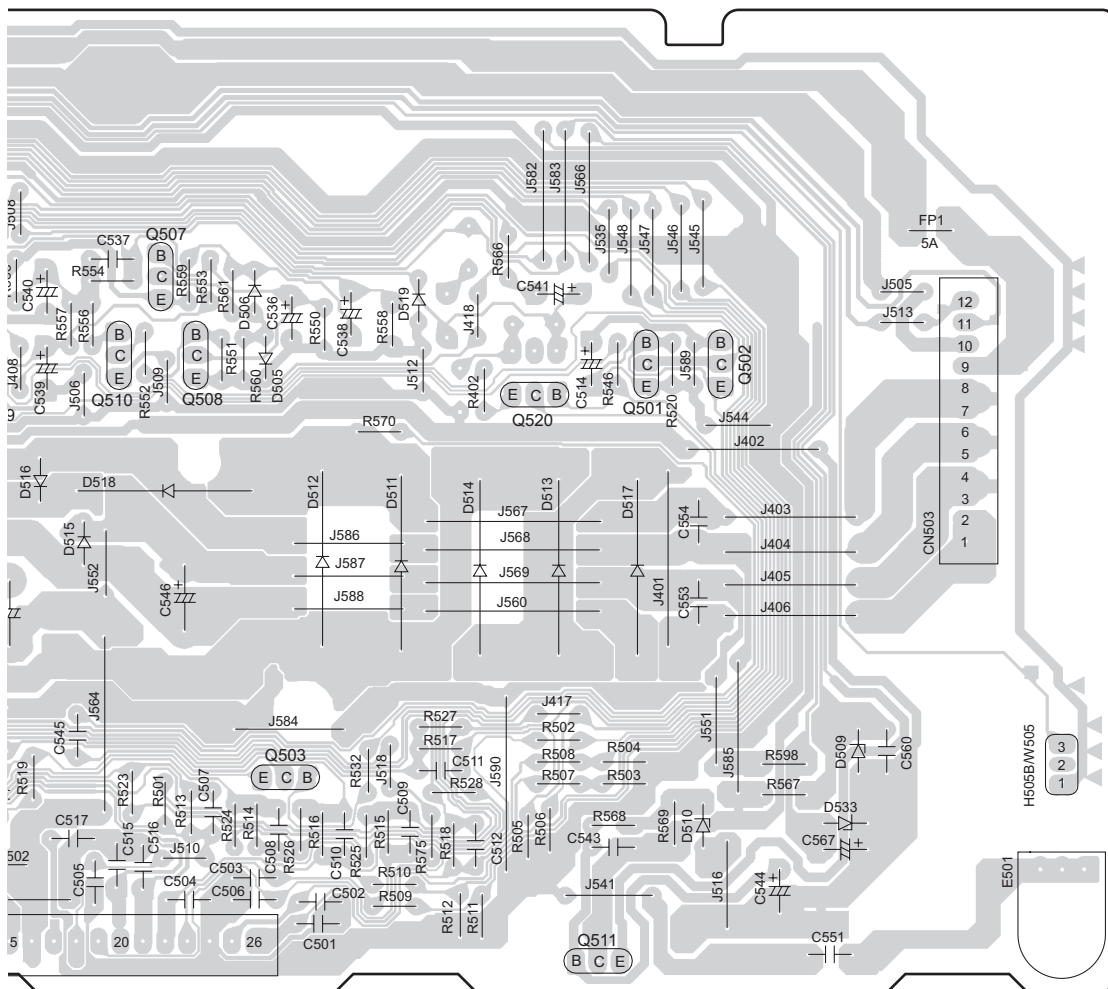
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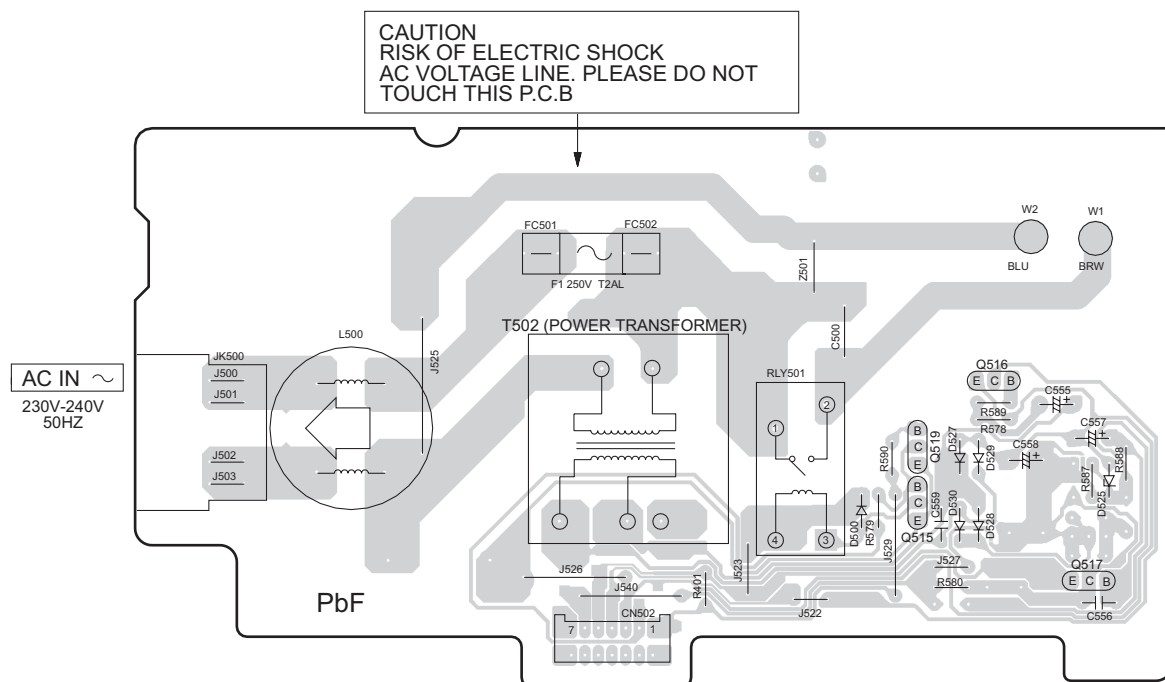
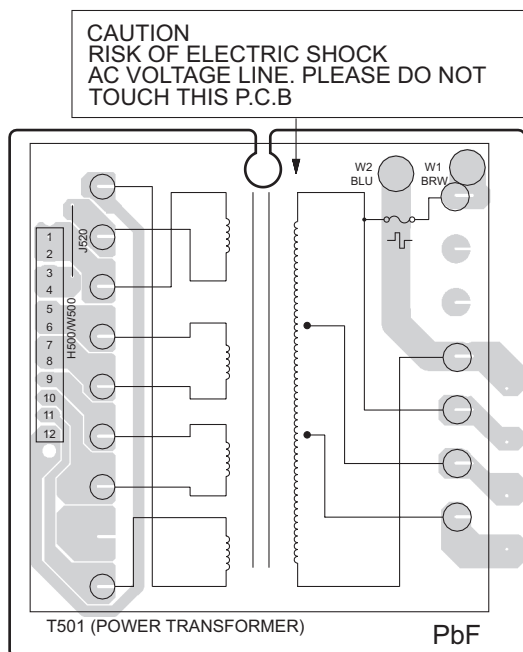
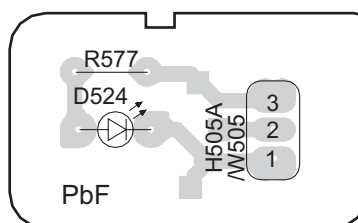
J

K

L

M



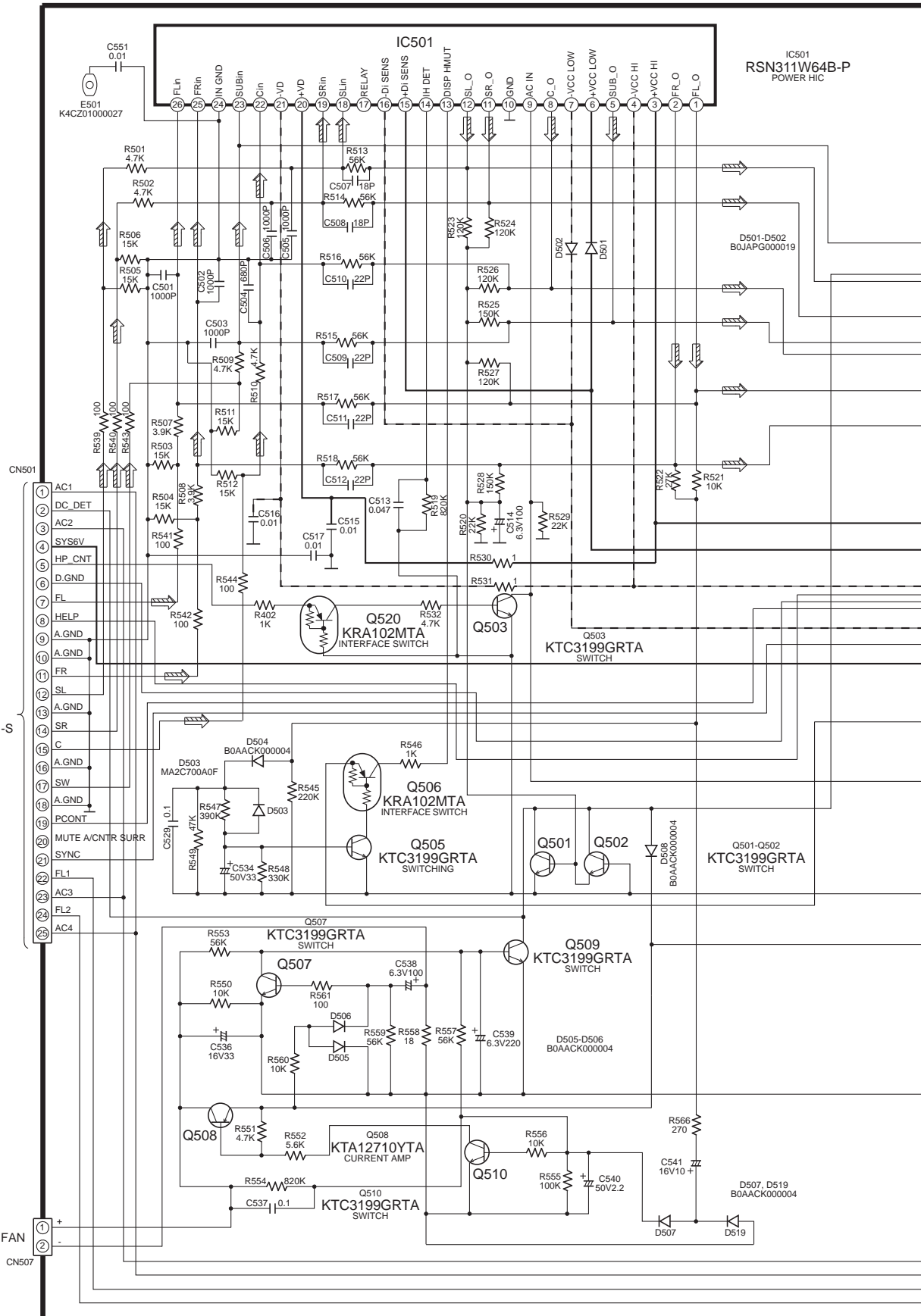
B AC INLET P.C.B. (REPX0375C)**C** TRANSFORMER P.C.B. (REPX0375C)**D** LED P.C.B. (REPX0375C)

A POWER CIRCUIT

— — — — — B SIGNAL LINE

 : MAIN SIGNAL LINE

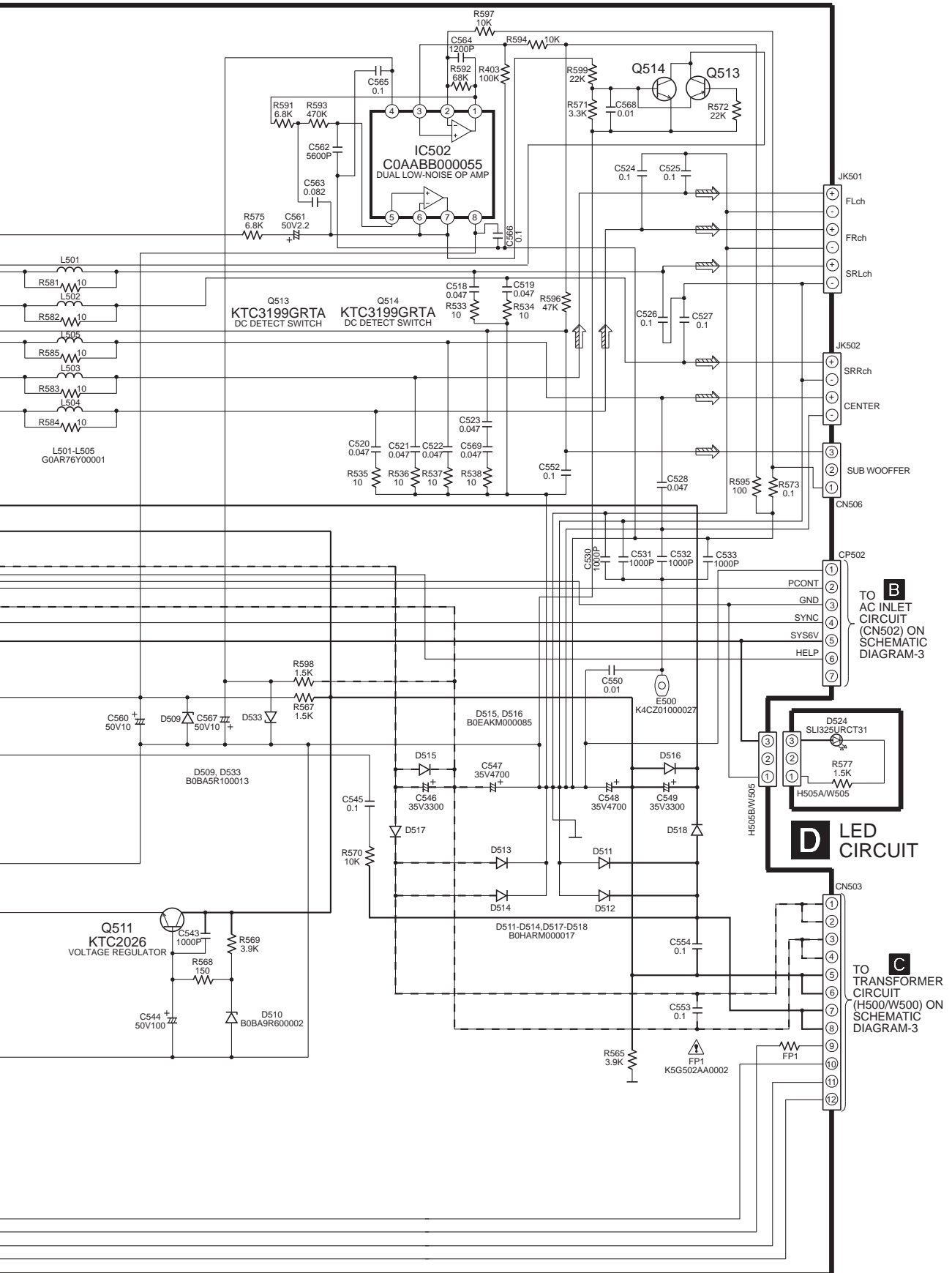
———— : +B SIGNAL LINE



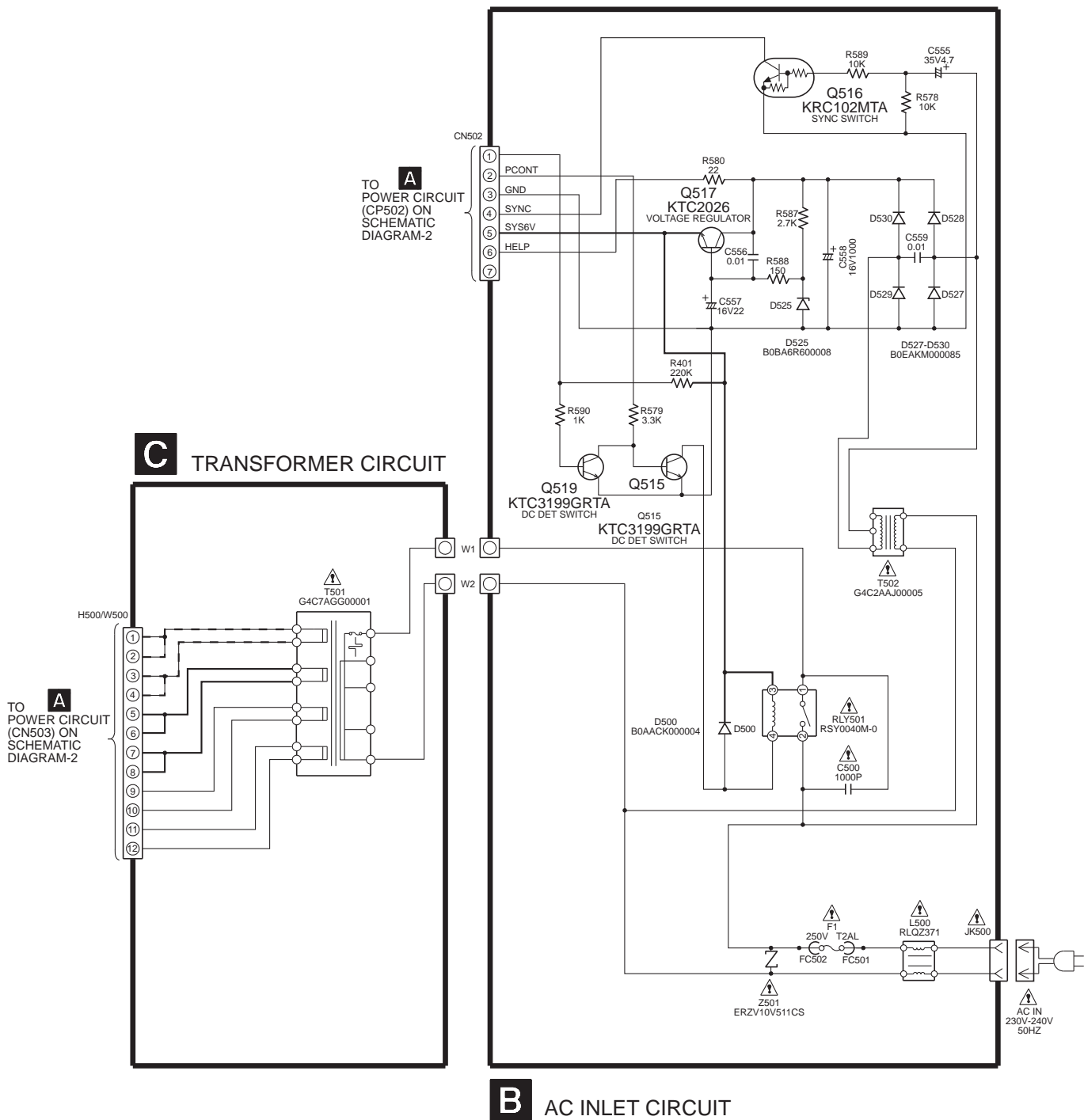
SCHEMATIC DIAGRAM-2

A POWER CIRCUIT

--- : -B SIGNAL LINE ➡ : MAIN SIGNAL LINE
 — : +B SIGNAL LINE



- - - : -B SIGNAL LINE
 ——— : +B SIGNAL LINE



ORDER NO. MD0405184S2

Service Manual

Active Subwoofer System



SB-WA340EBS1

Colour

(S1) ... Silver Type

Change of Cabinet & Net Frame Assembly

Please file and use this supplement manual together with the service manual for Model No. SB-WA340EBS1, Order No. MD0310441C2.

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WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

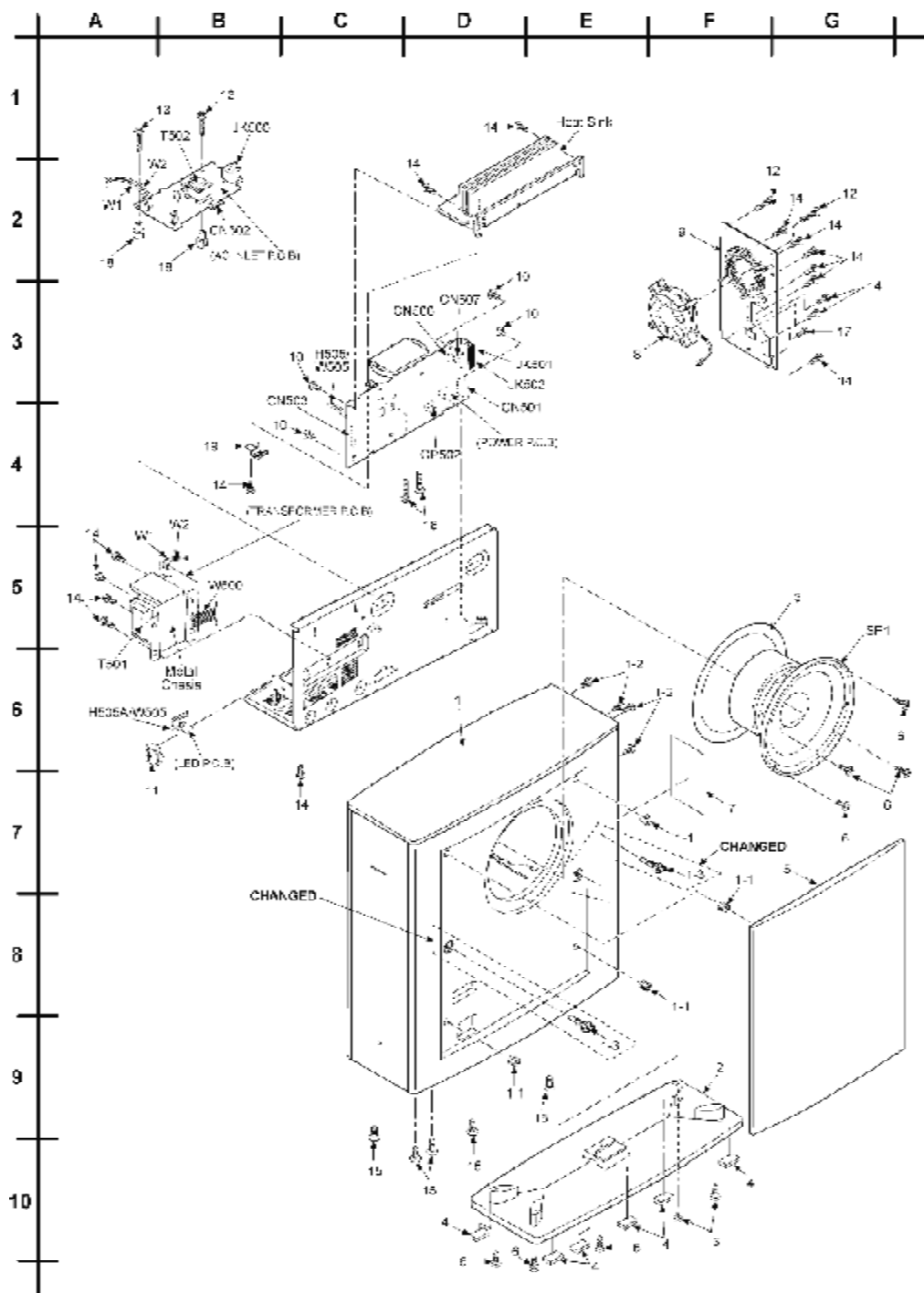
Panasonic

1. Parts Location & Replacement Parts List

With reference to Original Service Manual on page 21 for Model No. SB-WA340EBS1.

1.1. Cabinet

1.1.1. Cabinet Parts Location (Changes)



1.2. Cabinet Parts List (Changes)

With reference to Original Service Manual on page 22 for Model No. SB-WA340EBS1.

BEFORE AMENDMENTS

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| | | CABINET AND CHASSIS | |
| | | | |
| 1 | RFKHBWA302-S | SPK CABINET ASS'Y | [M] |
| 5 | RYB0298A | NET FRAME ASS'Y | [M] |

AFTER AMENDMENTS

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|--------------|-------------------------|-------------|
| | | CABINET AND CHASSIS | |
| | | | |
| 1 | RFKHBWA302-S | SPK CABINET ASS'Y | [M] |
| 1-3 | RKQP0252-1 | CATCHER PIN | [M] ADDED |
| 5 | RYB0298G | NET FRAME ASS'Y | [M] CHANGED |

Please take note that the net frame ass'y (RYB0298G) must be used together with speaker cabinet ass'y (RFKHBWA302-S). Both parts are not interchangeable.

M0405 N